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Serial No. 10/673,893

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

- 1 1. (currently amended) A method performed by an apparatus for watermarking a
2 video signal, the method comprising the step of:
3 automatically selecting a chrominance portion of a pixel of an image of a video
4 signal to be watermarked, said video signal to be watermarked without changing its
5 luminance, said selecting step employing a perception-based table that is independent of
6 said image and indicates for each of at least a plurality of possible pixels in a colorspace
7 which, if any, of the chrominance portions of said plurality of pixels in said colorspace
8 should be selected for watermarking, said table being stored in a computer readable
9 medium.
- 1 2. (original) The invention as defined in claim 1 wherein said perception-based
2 table indicates for each entry therein whether to watermark only a first chrominance
3 portion or only a second chrominance portion.
- 1 3. (original) The invention as defined in claim 1 wherein said perception-based
2 table indicates for each entry therein whether to watermark a first chrominance portion, a
3 second chrominance portion, or not to watermark at all.
- 1 4. (original) The invention as defined in claim 1 wherein said perception-based
2 table is in computer readable form.
- 1 5. (original) The invention as defined in claim 1 wherein said perception-based
2 table divides an entire colorspace into regions, at least one of said possible pixels within
3 each said region, and said perception-based table supplies an indication for said pixel
4 based on which region of said perception-based table said pixel falls.

Serial No. 10/673,893

1 6. (previously presented) The invention as defined in claim 1 wherein said pixel
2 of said image is part of a digital video bitstream represented in YUV format and wherein
3 said perception-based table indicates for any pixel that could possibly be in said image to
4 watermark U or V as a function of the Y, U, and V values of said pixel.

1 7. (previously presented) The invention as defined in claim 1 wherein said pixel
2 of said image is part of a digital video bitstream represented in YUV format, and wherein
3 said selecting step is performed using only said YUV formatted digital bitstream directly
4 and no other version of said digital bitstream formatted in any other format.

1 8. (previously presented) The invention as defined in claim 1 wherein said pixel
2 of said image is part of a digital video bitstream represented using a first colorspace type
3 representation, and wherein, said selecting step is performed using only a digital bitstream
4 formatted in said first colorspace type representation directly and other colorspace type
5 representation.

1 9. (previously presented) The invention as defined in claim 1 wherein said pixel
2 of said image is a decimated pixel derived from an original digital video bitstream.

1 10. (previously presented) The invention as defined in claim 1 wherein said pixel
2 of said image is a decimated pixel derived from an original digital video bitstream
3 represented in YUV format,

1 11. (previously presented) The invention as defined in claim 1 wherein said pixel
2 of said image is a quantized pixel derived from an original digital video bitstream.

1 12. (previously presented) The invention as defined in claim 1 wherein said pixel
2 of said image is a quantized pixel derived from an original digital video bitstream
3 represented in YUV format,

Serial No. 10/673,893

1 13. (previously presented) The invention as defined in claim 1 wherein said
2 perception-based table contains information to indicate which, if any, of the chrominance
3 portions should be selected for watermarking for every possible pixel value of the
4 entirety of said colorspace.

1 14. (original) The invention as defined in claim 1 wherein said perception-based
2 table contains information to indicate which, if any, of the chrominance portions should
3 be selected for watermarking for each possible pixel of only a prescribed portion of said
4 colorspace, and wherein said selecting step further comprises the step of determining that
5 pixel of said image is within said prescribed portion of said colorspace for which said
6 perception-based table contains information.

1 15. (previously presented) The invention as defined in claim 1 wherein said
2 perception-based table contains information to indicate which, if any, of the chrominance
3 portions should be selected for watermarking for each possible pixel of only a portion of
4 said colorspace, and wherein said method further comprises the steps of:
5 determining that pixel of said image is not within said portion of said colorspace
6 for which said perception-based table contains information; and
7 determining which, if any, of the chrominance portions should be selected for
8 watermarking for said pixel of said image, as a computed function of at least one value of
9 said pixel.

1 16. (previously presented) The invention as defined in claim 1 wherein a
2 chrominance portion of said pixel of said image is watermarked by having its value
3 changed to represent the conveyance of additional data other than the original value of
4 said chrominance portion.

Serial No. 10/673,893

1 17. (previously presented) Apparatus for supplying an indication as to which
2 chrominance portion of a pixel an image of a video signal, if any, is better suited to be
3 altered so as to carry additional watermark information without changing said pixel's
4 luminance, said apparatus comprising a perception-based table in a computer readable
5 media for at least a portion of the possible pixel colorspace, said table being independent
6 of said image, said table specifying for pixels that are within said portion of said
7 colorspace the chrominance portion to be indicated by said apparatus.

1 18. (previously presented) The invention as defined in claim 17 further
2 comprising a computation unit for indicating for a pixel of said image that is not within
3 said portion of said colorspace which chrominance portion is to be indicated based on at
4 least a value of one of said chrominance portions of said pixel of said image.

1 19. (previously presented) The invention as defined in claim 17 wherein said
2 chrominance portion is better suited to be altered when altering said chrominance portion
3 will produce less, if any, visible artifact than altering any other chrominance portion of
4 said pixel of said image.

1 20. (currently amended) A method ~~for detecting a watermark signal that is~~
2 performed by an apparatus for detecting watermark data that was added to a video signal,
3 the method comprising the step of:

4 automatically selecting a chrominance portion of a pixel of an image of a video
5 signal, said video signal having been watermarked without changing its luminance, said
6 selecting step employing a perception-based table that is independent of said image and
7 which indicates for each of at least a plurality of possible pixels in a colorspace which, if
8 any, of the chrominance portions most likely had watermark data added thereto, said table
9 being stored in a computer readable medium.

Serial No. 10/673,893

1 21. (previously presented) Apparatus for selecting a chrominance portion of a
2 pixel of an image of a video signal to be watermarked, said apparatus comprising a
3 perception-based table in a computer readable medium that indicates for each of at least a
4 plurality of possible pixels in at least a portion of a colorspace which, if any, of the
5 chrominance portions would be least likely to introduce a visible artifact should
6 watermark data be added thereto, said video signal to be watermarked without changing
7 its luminance.

1 22. (previously presented) Apparatus for selecting a chrominance portion of a
2 pixel of an image of a video signal to be watermarked so that there are effectively no
3 changes to a luminance of said video signal, said apparatus comprising:

4 a computer readable store containing a perception-based table that is independent
5 of said image and which indicates for each of at least a plurality of possible pixels in at
6 least a portion of a colorspace which, if any, of the chrominance portions should be
7 selected for watermarking; and

8 means for accessing said store to determine which chrominance portion, if any, to
9 select, when said pixel of said image to be watermarked is one of said pixels in said
10 portion of said colorspace.

1 23. (previously presented) The invention as defined in claim 22 further
2 comprising means for computing as a function of a least one value of said pixel of said
3 image which, if any, of the chrominance portions should be selected for watermarking,
4 said means for computing operating only when said pixel is not one of said pixels in said
5 portion of said colorspace.

1 24. (previously presented) Apparatus for selecting a chrominance portion of a
2 pixel of an image of a video signal, said video signal having been watermarked without
3 changing its luminance, said apparatus comprising:

4 a computer readable store containing a perception-based table that is independent
5 of said image and which indicates for each of at least a plurality of possible pixels in at
6 least a portion of a colorspace which, if any, of the chrominance portions most likely had
7 watermarking data added thereto; and

8 means for accessing said store to determine which chrominance portion, if any, to
9 select, when said pixel is one of said pixels in said portion of said colorspace

Serial No. 10/673,893

1 25. (currently amended) Apparatus in a receiver for selecting a chrominance
2 portion of a pixel of an image of a video signal that may have been watermarked in a
3 transmitter, said video signal having have been watermarked so as not to change its
4 luminance, the apparatus comprising:
5 a computer readable store containing a perception-based table that is independent
6 of said image and which indicates for each of at least a plurality of possible pixels in at
7 least a portion of a colorspace which, if any, of the chrominance portions was most likely
8 selected to be watermarked; and
9 means for accessing said store to determine which chrominance portion, if any, to
10 select, when said pixel of said image is within said portion of said colorspace.

1 26. (currently amended) A method performed by an apparatus for watermarking a
2 video signal, the method comprising the step of:
3 automatically selecting at most one chrominance portion of a pixel of an image of
4 a video signal to be watermarked by adding thereto additional information, said selecting
5 step employing a perception-based table that is independent of (i) said image and (ii) said
6 additional information, said table indicating for each of at least a plurality of possible
7 pixels in a colorspace which one, if any, of the chrominance portions of said plurality of
8 pixels in said colorspace should be selected to have said additional information added
9 thereto, said table being stored in a computer readable medium.

1 27. (previously presented) Apparatus for supplying an indication as to which
2 chrominance portion of a pixel an image of a video signal, if any, is better suited to be
3 altered so as to carry additional watermark information, said apparatus comprising a
4 perception-based table in a computer readable media for at least a portion of the possible
5 pixel colorspace, said table being independent of (i) said image and (ii) said additional
6 watermark information, said table specifying for pixels that are within said portion of said
7 colorspace the chrominance portion to be indicated by said apparatus.

Serial No. 10/673,893

1 28. (currently amended) A method ~~for detecting a watermark signal that is~~
2 performed by an apparatus for detecting watermark information that was added to a video
3 signal, the method comprising the step of:

4 automatically selecting a chrominance portion of a pixel of an image of a video
5 signal, said video signal having been watermarked with watermark information, said
6 selecting step employing a perception-based table that is independent of (i) said image
7 and (ii) said watermark information and which indicates for each of at least a plurality of
8 possible pixels in a colorspace which, if any, of the chrominance portions most likely had
9 watermark information data added thereto, said table being stored in a computer readable
10 medium.

1 29. (previously presented) Apparatus for selecting a chrominance portion of a
2 pixel of an image of a video signal to be watermarked by adding thereto additional
3 information, said apparatus comprising a perception-based table in a computer readable
4 medium that is independent of (i) said image and (ii) said additional information and
5 which indicates for each of at least a plurality of possible pixels in at least a portion of a
6 colorspace which, if any, of the chrominance portions would be least likely to introduce a
7 visible artifact should watermark data be added thereto.

1 30. (currently amended) A method ~~for detecting a watermark signal that is~~
2 performed by an apparatus for detecting watermark data that was added to a video signal,
3 the method comprising the step of:

4 automatically selecting a chrominance portion of a pixel of an image of a video
5 signal that had watermark data added thereto, said selecting step employing a perception-
6 based table that is independent of (i) said image and (ii) said watermark data and which
7 indicates for each of at least a plurality of possible pixels in a colorspace which, if any, of
8 the chrominance portions most likely had watermark data added thereto, said table being
9 stored in a computer readable medium.

Serial No. 10/673,893

1 31. (currently amended) A method performed by an apparatus for watermarking a
2 video signal, the method comprising the step of:

3 automatically selecting no more than one chrominance portion of a pixel of an
4 image of a video signal to be watermarked, said selecting step employing a perception-
5 based table that is independent of said image and indicates for each of at least a plurality
6 of possible pixels in a colorspace which, if any, of the chrominance portions of said
7 plurality of pixels in said colorspace should be selected for watermarking, said table
8 being stored in a computer readable medium.

1 32. (previously presented) Apparatus for supplying an indication as to only one of
2 which, if any, chrominance portion of a pixel an image of a video signal, is better suited
3 to be altered so as to carry additional watermark information, said apparatus comprising a
4 perception-based table in a computer readable media for at least a portion of the possible
5 pixel colorspace, said table being independent of said image, said table specifying for
6 pixels that are within said portion of said colorspace the particular no more than one
7 chrominance portion to be indicated by said apparatus.

1 33. (currently amended) A method ~~for detecting a watermark signal that is~~
2 performed by an apparatus for detecting watermark data that was added to a video signal,
3 the method comprising the step of:

4 automatically selecting no more than one of a chrominance portion of a pixel of
5 an image of a video signal, said video signal having been watermarked, said selecting step
6 employing a perception-based table that is independent of said image and which indicates
7 for each of at least a plurality of possible pixels in a colorspace which, if any, of the
8 chrominance portions most likely had said watermark data added thereto, said table being
9 stored in a computer readable medium.

1 34. (previously presented) Apparatus for selecting no more than one chrominance
2 portion of a pixel of an image of a video signal to be watermarked, said apparatus
3 comprising a perception-based table in a computer readable medium that indicates for
4 each of at least a plurality of possible pixels in at least a portion of a colorspace which, if
5 any, of the chrominance portions would be least likely to introduce a visible artifact
6 should watermark data be added thereto.